

WHAT IS CLAIMED IS:

1. An automatic metal solution dilutor comprising:
  - a material feeding part storing a stock solution to be diluted;
  - a dilution tank mixing said stock solution fed from said material feeding part with a diluent liquid and preparing a diluted solution for diluting said stock solution;
  - 5 a measuring device measuring absorbance of said diluted solution in said dilution tank;
  - a metering device metering said diluted solution in said dilution tank with an electronic balance so that a dilution magnification obtained from said absorbance measured by said measuring device reaches a prescribed value; and
  - 10 a control part monitoring the value measured by said measuring device and the value metered by said metering device for operating and controlling the quantity of at least either said stock solution or said diluent liquid fed to said dilution tank so that said dilution magnification reaches said prescribed value on the basis of said absorbance measured by said measuring device.
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2. The automatic metal solution dilutor according to claim 1, further comprising a finishing part having several closed tanks including mechanisms of storing said diluted solution fed from said dilution tank and feeding said diluted solution with compressed gas.
3. The automatic metal solution dilutor according to claim 1, wherein said material feeding part includes an exchangeable bottle for storing said stock solution and has a structure feeding said stock solution stored in said bottle to said dilution tank with compressed gas.
4. The automatic metal solution dilutor according to claim 1, wherein said dilution tank has a purging mechanism incorporating compressive gas inward and discharging said compressive gas outward.

5. The automatic metal solution dilutor according to claim 4, further comprising a hopper having said purging mechanism incorporating said compressive gas inward and discharging said compressive gas outward in a path for feeding said diluted solution from said dilution tank, wherein  
5 a pipe connecting said dilution tank and said measuring device with each other is at least partially formed by a spiral tube.

6. The automatic metal solution dilutor according to claim 5, wherein at least two pipes having different thicknesses introduce said diluent liquid into said dilution tank.

7. The automatic metal solution dilutor according to claim 1, wherein the material for portions coming into contact with said stock solution, said diluent liquid and said diluted solution consists of resin containing a low amount of fluorine.